

Environmental Insurance and
Public Sector Brownfields Programs:
Factors Affecting Pursuit of
Insurance as a Redevelopment Tool



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Executive Summary

In the last decade, attention has increasingly focused on the cleanup and reuse of brownfields, i.e., abandoned, idled, or underutilized industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived contamination. Environmental insurance (EI), created to assist in the redevelopment of these sites, has been improved substantially in recent years. To date, however, the insurance products have been used predominately in large-scale, private redevelopment efforts. This report presents knowledge of available insurance products on the part of representatives of state and local brownfields organizations, examines factors that have encouraged or discouraged efforts to explore the utility of the products, and provides recommendations to help government entities determine the potential of EI in promoting brownfields reuse.

Telephone conversations with representatives of state and local brownfields programs provided the primary source of information for the study. To assess involvement with insurance on the part of public actors who were experienced with brownfields redevelopment, a focus was placed on cities that had been awarded Environmental Protection Agency (EPA) Brownfields Assessment Demonstration Pilot grants and funding for EPA's Brownfields Cleanup Revolving Loan Program.

Overall, the data indicate that the majority of municipalities and states engaged in redevelopment efforts are not yet using or actively exploring the use of EI and that the level of public sector knowledge about currently available insurance products is low. While insurance policies are not appropriate for all brownfield projects, lack of interest in pursuing them where they could be of use may be attributed largely to an inability to conceptualize the potential value of the products to public brownfield programs. In addition, consideration of insurance was discouraged by a "self-insurance mind-set" or sense of invulnerability from environmental claims stemming from government immunities and from the ability to self-insure.

Factors that increased the likelihood that a municipality or state would engage in efforts to gather information about EI included the presence within the brownfields group of a person with knowledge of insurance (such as a broker or professional risk management consultant) and discussions in which the relevancies of EI to particular brownfield problems were addressed. Active involvement of the team was essential to moving forward in the pursuit of insurance as a tool. Where information was not shared and discussed, progress toward this end stalled. Public representatives who expressed an interest in EI hoped

that the tool would (a) assist small-scale brownfield projects; (b) encourage owners to release idle brownfield properties for redevelopment; (c) reduce liability risks for developers and new owners; and (d) protect borrowers and public sector actors involved in the Brownfields Cleanup Revolving Loan Program.

For those who were actively pursuing insurance as a brownfields tool, progress over time was slow. The most difficult task they faced in developing an insurance program lay in determining how it should be structured. Limited personnel resources coupled with the complexities of designing such a program stalled the efforts. State and municipal insurance programs cannot simply replicate private sector programs because governments seek to redevelop both publically and privately owned sites, must deal with the needs of both small- and large-scale projects, have special immunities not available to private parties, and are subject to different legal requirements dictating insurance purchases.

Designing an EI program useful to government entities requires a lengthy process of collaboration and negotiation between insurance industry and government representatives. During the process, frustrations can emerge on both sides. Some government officials were dissatisfied when requests for price quotations were not forthcoming in a timely manner from insurance industry representatives. Frustrations on the part of brokers and carriers in attempting to participate in the design of innovative insurance products for government included the fact that they receive no financial compensation until a policy is purchased. Additional sources of frustration included sluggish public sector decision-making processes, legal requirements for public disclosure of bid contents, and the need for insurance representatives to educate a number of public actors from multiple departments and agencies. Indeed, the research team found only one insurance representative to be actively involved with a brownfields working group.

The potential that EI may hold for accelerating the cleanup and redevelopment of brownfields requires the concerted efforts of insurance industry representatives and public stakeholders. The most important step that needs to be taken consists of creating a national forum to develop workable models of insurance programs that public entities could use as a basis for creating programs geared to their specific needs. Such a forum must address a number of critical questions:

- ◆ Considering the diversity of the brownfield sites with which governments deal in terms of size, ownership, and degree of contamination, how feasible are portfolio policies covering multiple sites in a single policy? What are the prospects that a portfolio policy will lower the insurance costs to serve the needs of small-scale projects? Given that different projects have different insuring needs and financing arrangements, what basic coverages should be included in the policy?

- ◆ What are the advantages of organizing a group of municipalities to purchase insurance for individual sites from commercial insurers at reduced costs and favorable terms? Considering that a single city may not have a sufficient number or diversity of brownfields to benefit from bulk purchases, should such groups be organized at the state level?
- ◆ Relative to purchasing insurance from a commercial carrier, what are the merits of using governmental self-insured pools or associations of government entities that pay losses from pooled funds created by the premiums members pay? What is the optimal composition of a pool in terms of size? How do various state regulations constrain the operation of a pool? What are the obstacles to simply adding EI coverages to the many existing governmental pools?
- ◆ How should public benefits be measured and assessed to determine the appropriate level of government involvement in the purchase of insurance? Should EI assistance replace other economic development stimuli as a means of promoting brownfields cleanup and reuse?

1.0 Introduction and Methodology

Municipal economic development programs have increasingly focused on the remediation and reuse of brownfields, defined by the Environmental Protection Agency (EPA) as abandoned, idled or underutilized industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived contamination. One set of tools of emerging significance in the efforts to reclaim these sites consists of new environmental insurance (EI) products currently available in the private market. These policies can assist brownfield projects by enabling property owners to quantify and limit risks and uncertainties associated with cleanup costs and future environmental liabilities, and by providing lenders with protection against losses associated with changes in the economic value of brownfield sites used as collateral. EI products have matured rapidly in the last few years and are now more useful and affordable than they have been in the past. However, the products thus far have been used predominately by the private sector in the redevelopment of large projects- add to exec summary.

This report presents findings from an exploratory study of municipal and state consideration of EI. The document describes knowledge of available insurance products on the part of selected government brownfield organizations, analyzes factors that encouraged or discouraged them from pursuing use of the products, and recommends steps that could be taken to help government entities determine the potential of EI in promoting the reuse of brownfields. In this Section, the analysis is introduced with a description of the sample, the methods used to collect data, and a summary of the research questions guiding the study.

1.1 Data Collection

Three types of data were used to prepare the report. The primary source of information consisted of telephone interviews with representatives from municipal and state organizations involved with brownfields redevelopment. These were free-flowing conversations tailored to individual interviewees who were encouraged to introduce and elaborate on matters they considered to be relevant. Promises of anonymity were given to encourage candid expressions of opinion. Most interviews were taped and transcribed; excerpts are used in the report to illustrate issues surrounding government involvement with insurance. To assess progress over time in public efforts to examine the utility of insurance, representatives who were seriously pursuing EI were interviewed both in the spring and the fall of 1999.

Field notes recorded during participant observation work at brownfields conferences and workshops in 1998 and 1999 provided a second, supplemental source of data. Most had sessions focused specifically on EI and one telephone consultation was devoted completely to EI. The events provided forums for the researchers to engage others in informal discussions about municipal considerations of insurance. Finally, the report references findings from a study of available insurance products conducted by one of the authors in 1999 based on detailed information about EI products collected from nine insurance carriers and brokers.¹

To assess involvement with insurance on the part of public actors who were experienced with brownfields redevelopment, a focus was placed on cities that had received EPA-funded Brownfields Assessment Demonstration Pilot grants.² Interviewees were contacted from fourteen of these cities, most of which had received grants as early as 1995. Eleven of the cities contacted had also received EPA Brownfields Cleanup Revolving Loan Fund (BCRLF) monies to enable them to make low-interest loans to clean up and redevelop brownfield sites. In addition to municipal representatives, individuals from three state-level efforts to utilize insurance were also interviewed.

While cities were selected to provide geographic dispersion across the US, sampling was based primarily on level of interest in EI. Interest was determined by web-page information on EPA Pilot cities produced by the Institute for Responsible Management; discussions with other analysts of brownfield programs; information collected during participant observation work, including *The Pilots' Own Conference* held in conjunction with the *Brownfields '98* national conference; and a flyer requesting information on Pilot consideration of EI inserted into the 1998 conference packet. These sources indicated very limited use of EI. To better determine the facilitators and barriers to investigation and purchase of insurance, sampling procedures emphasized those Pilots that had begun a serious effort to explore the use of insurance, so that their experiences could be evaluated.

The table below provides a categorization of the states and cities included in the sample in terms of their level of involvement with EI. The state that incorporated insurance into its brownfields program did so in the summer of 1999. An arrangement was negotiated with one carrier for the provision of various

¹ Northern Kentucky University. 1999. *Environmental Insurance Products Available for Brownfields Redevelopment, 1999*. Washington, DC: US Government Printing Office.

² Among other purposes, these grants are intended to facilitate site assessments, generate interest in redevelopments by bringing together multiple community stakeholders, and test redevelopment models.

insurance protections. These included Cleanup Cost Cap policies that pay for cost overruns on a brownfield cleanup, Pollution Liability coverages that insure for the cost of claims due to a pollution problem, and Secured Creditor coverages that essentially provide loan guarantees to financiers providing capital for brownfield projects.

Interest in Pursuing Brownfields Insurance		
Characteristics of Activity	State Level	Municipal Level
Incorporated EI as a component of their brownfields redevelopment program	1	2
Seriously pursuing the possibilities of EI by gathering information from insurance representatives	2	5
Interested in EI, but not yet pursuing information about available products		4
Not interested in acquiring information about EI at the time data were collected		3

Despite attempts to identify EI users, only two cities included were categorized as having incorporated EI. One of these requires proof from BCRLF borrowers that they have purchased a Cleanup Cost Cap policy. The second offers protection that mimics this same type of insurance for developers of small sites, providing up to \$100,000 per site in cost overrun coverage.

Only a small number of cases were analyzed in this study and non-random sampling procedures were used; undoubtedly there are other cities and states not included in the sample that are either employing some form of EI or actively examining the potential of insurance. The numeric proportions reflected in the Table are not statistically generalizable to all Pilot projects nor indicative of the many municipal brownfield programs that have not received EPA funds. During numerous informal interviews with Pilot participants, individuals expressed curiosity about insurance and requested further information about it. Overall, the field work suggests that the largest groups of cities fall into the last two categories, i.e., interested, but not actively pursuing insurance and not interested in EI at this time.

A total of thirty individuals were engaged in individually tailored telephone conversations and are referred to in the following ways in this report. The largest group consisted of sixteen Pilot “Administrators” or government employees directing the work of the Pilots. The second largest consisted of seven

“Members” or individuals who served as community members of the Pilot advisory committee or working group. Others interviewed were “State Officials” from state economic development or environmental protection offices, two BCRLF “Loan Administrators” who managed the loan funds, and two municipal “Risk Managers” or municipal employees responsible for insurance purchases for their cities.

Some of these interviewees are designated as “Advocates.” This term, used for analytical purposes, refers to Administrators or Members who had special knowledge of environmental insurance and, in most cases, had current or past associations with the insurance industry (e.g., a broker or someone who had worked as a broker in the past, a private economic development consultant who was familiar with insurance as a component of the development toolbox). The individuals are referred to as Advocates in that they encouraged others to consider the potential of EI for brownfields.

1.2 Report Overview

This analysis concentrates on several key issues. These include:

- ▶ the extent to which public actors were knowledgeable about available insurance products;
- ▶ the reasons for their interest in EI, where interest existed;
- ▶ factors that distinguished cities that had actively pursued or used EI from those that had not;
- ▶ circumstances that prompted or deterred interest in EI;
- ▶ the impediments to moving forward to investigate and perhaps utilize insurance;
- ▶ the steps that need to be taken to determine the utility of EI for brownfields redevelopment to different stakeholders.

Public sector knowledge of insurance policies for brownfields and perceptions of their uses are summarized in Section 2.0. Section 3.0 addresses the stimuli and impediments to local government pursuit of EI for brownfields redevelopment. In addition to knowledge gaps, municipal institutional problems inhibit the development of a strong public EI market. Unresolved questions about the ways such programs could be structured are highlighted. Section 5 concludes the report with recommendations for further research to help determine the utility of insurance, and a proposal for a forum to develop models of government-led EI programs.

2.0 Knowledge and Expectations of Environmental Insurance

This Section opens with a brief overview of the types of EI available and comprehension of them on the part of public officials in general. A focus is then placed on those public actors who indicated an interest in EI or were actively pursuing information about insurance to examine their expectations or hopes for goals that could be achieved by using insurance for brownfields cleanup and redevelopment.

2.1 Types of Insurance Products and Public Sector Understanding of Them

Three principal types of EI policies are most relevant to brownfield owners, developers, lenders and public facilitators of redevelopments.³ These include the following:

- ◆ ***Cleanup Cost Cap policies*** that protect against cost overruns above the estimated cost of a planned cleanup at a brownfield site. Coverages may include costs due to discovery of greater spread or higher concentrations of contaminants than were noted in the remediation plan, costs due to discovery of contaminants that were not noted in the plan, and costs due to regulatory requirement changes.
- ◆ ***Pollution Liability policies*** that insure against three categories of risks. These include (a) costs of third party bodily injury and property damage claims for damage occurring onsite (on the insured's property) or offsite (e.g., where pollution from the insured's property has migrated); (b) onsite cleanup costs and related expenses incurred by the insured that may arise from a pre-existing pollution problem or from current pollution releases during the policy period; and (c) legal defense costs associated with the first two elements.
- ◆ ***Secured Creditor policies*** that protect lenders, thus facilitating developer access to capital. Coverages may include reimbursement for loan payments in the case that a borrower defaults, compensation to lenders for collateral value loss caused by a pollution condition, remediation costs at bank-owned sites, the costs of third party bodily injury and property damage claims as a result

³A range of additional products are also available for environmental industry service providers (e.g., hazardous waste transporters, remediation contractors, environmental engineers).

of site contamination, and legal defense costs to defend against claims.

In the past few years, key features of the insurance coverages have all shifted toward making EI both easier to obtain and more valuable to the insured. Most notably, compared to policies available three to four years ago, maximum dollar coverage limits have increased, policy periods have been lengthened, site assessment requirements are not as stringent, coverages are broader, and protections against more risks are generally available for each premium dollar.

In general, EI Advocates who had previous or current associations with the insurance industry as brokers or consultants were knowledgeable about these policies. When others were asked to characterize their knowledge of the products, however, they generally were unable to describe the three basic types of insurance products just enumerated. One Administrator summed the responses of most interviewees by noting that her understanding of EI was, "Very low. Very limited." Another elaborated:

Most of us just aren't that aware of what's out there -- you know, whether it's a good deal or a bad deal. Insurance is something we're just not familiar enough with to make an educated decision. (Administrator)

While some Administrators and Members indicated awareness of the fact that there have been improvements in insurance products, they were unclear about the nature and extent of the changes:

It's my understanding that there are some products being offered or at least ideas being floated about products that would provide an excess level of insurance above a certain cost. (Member)

I know that insurers have been coming up with some creative vehicles that I think deserve some study. But I don't think they're very far along that track yet, in terms of having insurance vehicles that are part of any substantial number of deals. (Member)

The limited understanding of EI on the part of the long-term Pilot participants suggests that others are even less prepared to consider this new tool. Newer Pilots are still learning about the many other issues they must face in the implementing brownfields programs and those municipalities that have yet to develop their approaches sufficiently to win Pilot funding from EPA, in all likelihood, are lagging even further behind the private sector in terms of their understanding of EI.

2.2 Perceived Objectives for Environmental Insurance

Section 2.2 concentrates on those actors who indicated an interest in insurance and examines their expectations for goals that could be achieved by using EI. Because of their familiarity with insurance, Advocates were articulate about ends that might be served with EI. For example, one Administrator who had worked in the insurance industry before assuming a public position was able to comment on the coverages from which municipalities could benefit when remediating and marketing city-owned properties:

The problem was concern on the part of municipalities that they would become liable. Now, in [State], the municipalities traditionally have had extensive immunities and there has also been additional innocent purchaser legislation. That takes away some of the concern, but you can still have a third party sue the city. I think, in most cases, the cities would still prove themselves not liable under their very extensive immunities, but you can still run up pretty hefty legal bills. So we talked about protection for liabilities related to the municipalities as owners, including defense cost. And then we talked about protections to the municipality should there be some sort of accidental release during the site investigations...Then, of course, you have cost cap coverage when the remediation is actually in process. Once it's cleaned up and you go to sell it, there's a need for protection of the municipality as the former owner. (Administrator)

This level of understanding about coverages on the part of Advocates, however, was not typical among other interviewees. Some were unable to explain exactly how the policies would be helpful, other than to note that the policies might provide additional “comfort” to developers and other stakeholders. Typical comments regarding coverage needs included an Administrator’s explanation that, “We want some sort of policy that would provide underwriting for individual projects to boost them along.”

Although they were generally unclear about specific coverages, other local officials were more focused in the objectives they hoped to accomplish with EI. Goals that were emphasized included assisting small-scale projects, easing owner liability concerns in order to free a property for redevelopment, providing coverages for long-term liability exposures, and protecting actors in the BCRLF Program.

2.21 Small-Scale Projects

One major goal for EI articulated by several interviewees involved addressing the needs of projects that are small, both in terms of property size and in scale of investment such as dry cleaners, photo labs, machine shops, and the like:

We don't have twenty-acre sites; to have a half-acre site is quite a big deal....Bigger projects on bigger sites can get coverage in the private market. What we were trying to do was offer a mechanism for the little guy who was falling through the cracks, where the premium was higher than the project could carry. So we were thinking more in terms of the smaller developments. (Administrator)

Hopefully, the insurance products now are more accessible to a small business looking to expand. Say they have 25 employees and want to expand to 100-150 employees on a new site and the only sites they can find in their budget are these dirty sites. How do they protect themselves? (Administrator)

Advocates who had examined insurance utilization by the private sector knew that the products have been of value primarily to large-scale projects and that addressing the needs of privately owned, small-scale projects would have to involve reducing premium costs. The hope expressed by several Administrators was that ways could be found to “pool” or combine sites to achieve this objective:⁴

We wanted to know if pooling would be an option for [the small projects]....It's amazing to me that so much of the literature and everything that's out there, is really geared to the larger investment sites -- everything from the financial planning to marketing. Well, you know, they're only dealing with one property owner, and that's a tremendously different situation....We have 143 property owners and 121 sites. And we're talking, in some cases, a small print shop on a 25 by 50 lot, where we know the cleanup may only be \$20,000 or \$25,000. Essentially what we're trying to figure out is, is there something that we can come up with that will help with the smaller sites? (Administrator)

2.22 Easing Owner Liability Concerns to Implement an Economic

⁴ The terms ‘pooled’ and ‘portfolio’ are often used interchangeably. Within the insurance industry, however, an insurance pool refers to a *group of organizations* that insures certain risks, sharing premiums, losses, and expenses among themselves. Pooling is often used where a single insured is not large enough to self-insure. A portfolio policy for brownfields refers to insurance coverages for a *combined set of sites*, whether or not there is more than one insured organization. The latter is most often what interviewees had in mind in their references to ‘pooled’ policies.

Development Strategy

An additional objective expressed involved motivating private owners to release brownfield properties for purchase and redevelopment so that a municipality could build an economic development plan. Long-term liability fears may discourage some large landowners from relinquishing their surplus properties to the market, especially if their cash flow positions are strong and they can afford to hold the idle assets.⁵ The immediate concern about the costs of having to mitigate a contaminated site is especially strong for smaller owners of potentially polluted properties, some of whom refuse access to potential buyers who want to do site assessments. Several Administrators expressed concerns about current owners' unwillingness to test for contamination and market their sites:

We were looking at insurance as a way to motivate the private owner to release the property to the market. Getting access to those properties to do an assessment sometimes is difficult because the owners perceive they have some exposure that they don't want to deal with. A tool like insurance might overcome the perception by taking care of their fear of liability. (Administrator)

Pilots engaged in efforts to convert brownfields to residential uses were especially interested in EI coverage. The need for insurance as a means of limiting risk was recognized to be exceptionally high for prospective residential uses, since they present an exceptionally high risk of third party lawsuits for damages after completion of an approved mitigation. One Member lamented a case in which he felt the purchase of an insurance policy would have greatly improved a redevelopment, but the tool was not used: City officials had argued that residential use of an old industrial site in a residential neighborhood would best fulfill community needs. Because of liability concerns, however, the owner of the site would only accept a purchase offer from a heavy industrial user, and placed a deed restriction on the property limiting the site exclusively to future industrial uses.

⁵In recent years, changes in Securities and Exchange Commission (SEC) reporting requirements have provided an impetus to property owners to conduct site assessments and divest themselves of idle properties. While the practice of not disclosing environmental liabilities was widespread in the past, the SEC policies have increased pressure to identify and report liability for historic pollution in the financial statements of corporations that follow Generally Accepted Accounting Principles in preparing their financial reports.

2.23 Loan Program Protections

Two converging factors account for interest in EI on the part of Pilots at this particular point in time. First, insurance products have been improved, making them more attractive to municipal users. Second, the EPA's BCRLF Program has generated new demand for the products. Whereas the initial Assessment Pilots did not concentrate on cleanup and marketing of brownfields, the loan program emphasizes these aspects of redevelopment. Thus, the Pilots receiving BCRLFs were more focused on the liability concerns of private-sector buyers and sellers. Furthermore, as one Member pointed out, the loan program places the Pilot group itself in the position of a lender with capital at risk:

In the case of the [Assessment] Pilot projects, there was no city investment. Therefore, because the city doesn't have capital at risk or see that its partners are likely to become an owner of a property that they didn't previously own, we haven't bothered with insurance. Now we've started to think about it in regards to the loan program. (Member)

Another interviewee noted that involvement with small firms -- inherent in the relatively limited scale of cleanup activity that the BCRLFs can support -- suggests the need for assistance with liability issues:

Unless they're a fairly large firm, which you won't attract with the [BCRLF], they're not familiar with how brownfields and environmental issues and liability works. So I think a missing link is being able to have available to them the opportunity to buy insurance through some cooperative effort or insurance pool. (Administrator)

BCRLF program participants could benefit from insurance in a number of ways. Protections could be provided for:

- ▶ borrowers, from cost-overruns on their cleanups and from liability claims;
- ▶ potential lenders, to increase their supplementation of the limited monies available in the revolving loan fund for cleanup and to secure long-term project loans;
- ▶ potential purchasers of developed sites, as a means of making the deals more attractive; and,
- ▶ the fund itself, in the event of default and simultaneous reduction in the collateral value of the brownfield property, so the pool is not depleted by a single bad loan.

While these potential benefits exist in principle, there was variation among respondents in their ability to specify objectives for EI in the context of the BCRLF. Some were unclear as to which coverages should be purchased, who should purchase them, and who should be named as the insured. Knowledge

of Secured Creditor coverage was notably lacking on the part of the two BCRLF Loan Administrators interviewed, both of whom expressed ignorance of the existence of the policies and requested further information about them.

One city categorized in this study as an EI user requires that any BCRLF borrower purchase Cleanup Cost Cap insurance (although they had not yet made a loan). Advocates were also very specific in identifying the needs that they thought could be met with EI, focusing on Cleanup Cost Cap coverage for the borrower and on collateral protection for the loan fund. One easily listed several potential uses of insurance:

The main focus has to be cost overruns, since we're dealing with a loan program for cleanups. Then there are liability policies that may be useful -- coverage for possible re-openers and things like that. And you could provide coverage that would make a bank willing to provide a long-term loan after the cleanup. One of the newer products is portfolio coverage which basically protects banks against defaults. (Member)

2.24 Long-Term Liability and Re-Opener Protection

One major concern that appeared to underlie many issues raised with respect to brownfield projects was the uncertainty associated with possible future, legal-action obligations. Federal Superfund law explicitly does not limit prospective liability for potentially responsible parties and the preponderant pattern across state programs is also to retain "re-opener" rights subsequent to any approved cleanup. One Pilot Member, who had served in the past as a state environmental agency attorney, described this issue well:

A question asked frequently by industry groups was, 'How do I know this is all I'm going to have to pay?' And, as the attorney for the state, my answer would be, 'Well, you don't, because we have to have this re-opener in here that deals with circumstances that aren't currently within our knowledge that may evolve while the remedy occurs. And what happens if there's a remedy failure?' So as representatives of the state, we were very insistent about not relieving people totally from liability. And that was often a stumbling block in those negotiations. And it was often realistic. A lot of times that liability wouldn't even arise until the second or third review period after the completion of a remedy. So, it was a real problem. People were willing to put up substantial amounts of money to resolve a problem, but they wanted that to be it. They didn't want to have any additional liability. So, [the Pilot group] talked about using insurance to cap that potential liability. (Member)

The issue of prospective risk has become more acute over time as new approaches to mitigation standards have evolved. Several interviewees recognized that adoption of Risk-Based Corrective Action standards increased the need for insurance coverages:

Our discussions [about environmental insurance] have been primarily along the lines of protecting future liabilities. Many times you're using Risk Based Corrective Action and not totally cleaning up the property...So there's potential there for residual contamination that's untreated to cause a problem for the purchaser and the seller. (Administrator)

2.25 Unidentified Needs: An Alternative to Municipal Indemnification

In addition to having the potential to address the problems that respondents identified, insurance products may also assist with problems not specified by interviewees. Consider, for example, the situation described by one interviewee who had concluded that insurance would not be useful to the Pilot's efforts. The municipality actively acquires, remediates, and markets brownfield sites and then indemnifies the purchasers, i.e., the city commits to protecting the parties from the possible costs of cleanups and damage suits in the future. The indemnification contracts, however, have drawbacks for indemnitors, primarily, the fact that the agreements constitute contingent liabilities that negatively affect their balance sheets and credit ratings.⁶ In other cities, such as the one described at *Brownfields '98* by a national broker, insurance can make a critical difference in such a situation:

Over the years, this city had collected a number of contaminated abandoned sites. They wanted to redevelop the sites, but the purchasers said, unless you give us some kind of indemnity from environmental conditions, we'll run. The city said, not a problem. They set them up for a minimal indemnity, \$500,000 to \$1 million-- not a lot of money. In a couple of years, they had provided indemnities on about 125 of these sites. All of a sudden, they noticed that their financial rating was going down, their bond rates were going down, it was harder for them to get credit. So what's going on? They realized that they had put on their balance sheet more than \$100 million worth of contingent liability based on these indemnifications. They were in a quandary. They wanted to continue to move these sites off their property rolls; they needed to provide indemnity, but it was hurting their credit rating...We were able to put together an insurance policy that covered the same liability as the indemnity agreements. It also provided coverage for third party claims filed against the

⁶Indemnification agreements, especially between private buyers and sellers have disadvantages for the indemnitee as well, including the potential need to undergo costly litigation to obtain financial commitments promised by an indemnitor and the inability of the indemnitor to fulfill monetary obligations made.

purchaser and any claims filed against the city. We were able to raise the limits of protection for the purchasers from \$500,000 to \$1 million up to \$3 million per occurrence and provide the city with \$100 million dollars of aggregate protection. The city decided that the risk level they could accept was \$250,000 per site...This allowed the city to remove most of the liabilities from its balance sheet and move forward. And the cost of the premium was \$700,000 for a three-year policy with an automatic renewal built into it. (Broker)⁷

While \$700,000 may appear to be expensive, \$100 million is substantial coverage, and a small increase in borrowing costs due to an impaired credit rating could easily cost a city more per year than the expense of this premium. At the point at which the uninsured Pilot city indemnifies enough properties to significantly downgrade the municipality's credit rating, it may decide to reconsider the use of insurance.

⁷See Ayers and Taylor (1998) for the written paper on which this quote is based.

3.0 Stimuli and Barriers to Government Investigations of Environmental Insurance

This Section explores factors that either prompted or deterred initial interest in EI and the impediments faced by those who had decided to move forward to investigate insurance. Critical variables included knowledge of and attitudes toward EI, the ways in which information about insurance was disseminated, deterrents to insurance representative efforts to work with government entities, and limited personnel resources in public brownfields programs. For those who were actively pursuing EI, the most serious barrier was envisioning and designing an insurance program that would fit the special needs of a public brownfields redevelopment program.

3.1 Beliefs and Attitudes

As noted in Section 2.0, with the exception of Advocates, even long-term Pilot participants' knowledge of EI was limited. When asked to specify the biggest barriers to municipal use of EI, one Advocate who had dealt with several municipalities in the past while working in the insurance industry expressed the opinion that, "Cities aren't interested because they don't understand the role of EI. They don't understand what it can do." This opinion was born out during interviews with those who indicated they had no interest in insurance, i.e., they were unable to conceptualize the potential value of the insurance products to their brownfield programs:

I really haven't considered insurance for the loan program. I haven't the slightest idea how it would be used in that context. I don't have a feel for it at all. (Administrator)

In the absence of current information about EI, beliefs about the products formed several years ago inhibited consideration of the tool. Comments, such as those that follow from Pilot participants who were not interested in EI, reflect perceptions that the policies are too expensive and that site characterizations demanded by insurers are prohibitive:

The city could have purchased insurance [for a publicly owned brownfield project], but I don't see how an insurance company could have made any money off the premium knowing up front that the cleanup was going to cost four million dollars. It seems to me that the premiums would have been horrendous. One thing I'm absolutely sure of is that they're going to make a profit. (Administrator)

The investigations [of EI] that we conducted have been fairly limited. But I'm under the impression that the site assessment work that would need to be done are far greater than what the state requires in the Voluntary Cleanup Program. The other issue is money. We're a fairly poor municipality and it's very difficult for us to come up with a premium. (Administrator)

The companies that write these policies have fairly rigorous requirements for environment assessment on the front end. That's a big part of the expense. And the premiums...are just breathtakingly expensive. (Member)

While the previous study conducted on available insurance products indicated that, indeed, Cleanup Cost Cap policies are too expensive for small brownfield projects, Pollution Liability policies have become increasingly more affordable, especially when purchased in portfolio policies that cover more than one site. Moreover, site assessment requirements are much less stringent than they were three to four years ago. Recent evidence suggests that private sector developers of large-scale brownfield projects have found EI to be an essential project component. The conclusions about EI articulated by the public sector interviewees by and large, appear to be grounded in dated information about the potential contribution of the tool.

In addition to beliefs about the prohibitive costs and requirements of insurance products, a "self-insurance mind-set" persists among some public officials, reflected in the comments below of two Administrators who were not interested in EI. This mental framework consists of a confidence in the capacity of the city's self-insurance program to protect against environmental liabilities and a sense of municipal invulnerability from environmental claims that stems from immunities granted by state and federal laws:

We haven't run across a situation where the city has had issues of future or undetermined liability...We just haven't found that we have that kind of an issue with city-owned property. (Administrator)

We don't purchase insurance generally. The city's self-insured...The risk management people don't see the need to have that kind of insurance policy because, if the city's liable for a property, we take care it. (Administrator)

Municipal environmental liability exposures are complex and vary from state to state. Federal

legislation, mirrored by laws passed in some states, offers cities protection from suits over properties acquired due to abandonment or tax delinquency, but not all properties acquired in other circumstances. In some states, municipal tort liability is limited; in other states, this is not the case. Regardless of a particular city's immunities, however, a self-insurance mind-set may inhibit consideration of EI with respect to municipally owned properties that *are* vulnerable to suits. Moreover, the attitude may deter contemplation of the potential role of insurance in easing buyer-seller concerns and thus facilitating brownfield transactions by private parties.

In most of the cities in the sample, the research team found that there was very little communication between Pilot group participants and Municipal Risk Managers, who are responsible for seeing that the city is adequately protected by insurance.⁸ Where there was communication, however, this mind-set may be promoted by Risk Managers who advise brownfield program operators that municipal risks do not exist when, in fact, they are present. The self-insurance pools to which many cities belong and the excess coverages purchased by the pool from an insurer generally exclude environmental liabilities associated with brownfields. Risk Managers who have never dealt with environmental claims may be unaware of the magnitude of risks involved in these protection gaps. One, who was familiar only with general liability policies that exclude pollution protections, found it difficult to believe that EI for brownfields was actually available:

To my knowledge, there have been very few pollution liability exposures that insurers have been willing to underwrite. Pollution has just been a 'no-no' in the industry. The fact that you've got various companies interesting in writing coverage for these brownfields is somewhat surprising to me. (Risk Manager)

As one insurance representative who had worked with several cities noted, the Risk Managers' lack of understanding of the products available is complicated by their reliance on relationships with brokers and insurance providers with no expertise in the environmental field:

Risk managers rely on their selected brokers who specialize in excess insurance since the vast majority of cities are self-insured. They don't look at insurance the way the private-sector buyer does. They just simply assume they're self-insured and if there's something that's excluded, well, it's just excluded. The problem is lack of awareness of the

⁸When public entities reach the point of purchasing insurance, this lack of communication may become problematic, since individuals who have not been educated about the liabilities surrounding brownfield sites will be integrally involved in the process of selecting the appropriate coverages needed.

significance of the environmental exclusion. (Broker)

This observation is clearly applicable to the perspective of the Risk Manager in one city with an active brownfields program that self-insures through a multi-city pool. The official acknowledged that his city carried effectively no brownfield insurance:

There's no pollution legal liability coverage under our excess insurance. Under the trust insurance there is pollution liability for sudden and accidental pollution, but not for gradual pollution. A brownfield situation would be a gradual situation and probably would be excluded. (Risk Manager)

Although his city's land bank owned more than one hundred abandoned commercial and industrial properties, he explained his lack of concern about this coverage gap by noting that, "At this point, we don't have any direct brownfield liability exposures that I'm aware of."

In addition to the mind-set described above, ideological concerns may further limit municipal use of insurance, i.e., some interviewees expressed ethical concerns about promoting programs that would profit insurance companies, as indicated by two Administrators not pursuing insurance:

We don't use environmental insurance here, mainly because we leave it to the private parties who are doing the development. That doesn't mean we don't encourage them. I'm a big believer in some of the new products; they can greatly reduce your long-term cost for redeveloping these sites. But it's a separation of church and state kind of thing, where we don't want to market the products because that's the business of the insurance industry. I don't think it's the job of the city to be pushing insurance for insurance companies. We don't work for those guys. (Administrator)

The question comes up, should the taxpayer be providing profit to an insurance company for something that the taxpayer is not responsible for at all? As a public servant I would hate to set up a program...that only puts profits in the hands of insurance companies. (Administrator)

Certainly, the cleanup and reuse of brownfields serve public health and economic interests. Moreover, government entities routinely contract with many private firms. However, as economists have noted for some time, there frequently is initial resistance when a new type of business interest stands to benefit from public dollars.

3.2 Information Dissemination

Among pursuers of EI, an important source of information has unquestionably been the series of national conferences organized by the Outreach and Special Projects Staff of the EPA Office of Solid Waste and Emergency Response. Presentations and question/answer periods about EI at the *Brownfields* '96, '97 and '98 meetings were cited repeatedly by interviewees as a stimulus to consideration of insurance use. Comments such as the following from one Administrator were common:

I went to the Brownfields Seminar in LA and there was a presentation there on insurance. That gave me a background and it sounded reasonable. (Administrator)

Exposure to the idea that EI was available and possibly could be useful was a necessary condition for consideration of its utility in a brownfields program, but this knowledge alone did not automatically translate into active investigation of insurance policies. Other factors, however, did stand out as prompts to further information searches. The first, noted as key by three Pilot groups, was exposure during a series of meetings to the perspectives of brownfield stakeholders in multiple roles. Such a process was described by one Administrator in a city currently using insurance:

We were holding monthly discussions with bankers, realtors, buyers, developers, and regulators because the state was revamping its regulations. And two topics surfaced as being *the* issues; one was financing and one was liability. And at that same time, we were drafting our EPA pilot grant application. And it occurred to us that site testing money alone isn't going to win that developer. They're still going to be fearful, because, what if the cleanup ended up being more than they thought? Is there anything we could do with our pilot to put them at ease? Well, we had heard enough about insurance to know there was cost cap insurance and we thought, 'What if we did a homespun version, directly from us to the developer?' It actually evolved with us thinking, 'What if I was the developer; what would I be afraid of?' ...Meeting with different players certainly helped us--hearing bankers saying, 'I'm afraid' and developers saying, 'I can't get a loan.' (Administrator)

A second important factor triggering consideration of EI was the presence of an Advocate within the group who was able to note the possible utility of insurance. Indeed, utilization of insurance on the part of the one state and one of the two cities that had incorporated EI may be attributed primarily to the participation of Advocates within the brownfields organizations. Where an Advocate did not exist within the group, interest was stimulated by insurance brokers and carriers who were brought in to present an overview of coverages to the group as a whole and to address the relevance of insurance to problems

associated with specific brownfield projects.

The common thread in each of the situations triggering pursuit -- conferences, presentations, and the presence of Advocates in Pilot groups -- was group discussion in which a socially generated consensus emerged that, perhaps, EI had promise as a brownfields tool. In the absence of such a situation, information provided did not necessarily motivate further study of EI. Several Administrators reported receiving brochures about insurance and, in some instances, had been called or visited by EI brokers. In two cases, a meeting with insurance representatives was held only with the Administrator, who did not convey the information to other Members.

In other cases, written materials sent by industry representatives were distributed to Members to read at their own discretion. As the following interviewee notes, because there were no discussions, the relevancies of the policies to specific brownfield projects were not drawn out and the complex questions that needed to be answered were not addressed:

Our discussions have been less discussions than people supposedly reading [written material that was disseminated]. We haven't actually sat down and said, 'What exactly do we need? What will make the bank happy? What will make the city happy? What coverages do we need for these individual projects? Do we want to look at portfolio coverage for all the projects that are covered by the loans?' We haven't done any of that. (Member)

In short, active involvement of the team was essential to moving forward in the pursuit of insurance as a tool. Where information was not shared and discussed, progress toward this end stalled.

3.3 Vendor Frustrations

The problem of educating public actors about the potential of EI is exacerbated by factors inhibiting insurance representatives from developing a public sector practice. As noted, brokers who were Members of a Pilot advisory group were especially useful as EI educators. The research team, however, found only one insurance representative to be actively involved with a Pilot (which, in fact, did incorporate insurance into its BCRLF program). The fact that the broker drove several hours to attend Pilot meetings in a city of more than two million in population, speaks to the limited numbers of brokers and agents who are willing and/or invited to serve on advisory groups:

There are very few brokers out there. I have virtually no competition. Locally, I'm the only broker going to these meetings. There's just a shortage of people to communicate these issues. (Broker)

So long as there remains an active private market for EI, insurance industry representatives may be more inclined to serve that niche rather than government entities. Interviews with brokers and carriers indicate that, although they believe it is feasible to develop insurance programs to serve public needs, many are also frustrated by the process of making a sale to public entities. The difficulties they have encountered in their efforts to pursue this market include the following:

- ◆ The design of insurance programs for public entities requires substantial investment due to the special needs of public brownfields programs (e.g., dealing with large and small sites and sites that are both privately and publically owned).
- ◆ Not all insurance coverages requested by public clients are financially attractive to underwriters, especially products for small-scale brownfield projects.
- ◆ Decision-making is generally slower in the public sector than it is in the private sector, so that the time lags between development of an insurance proposal and consummation of a transaction is longer, making public clients less attractive.
- ◆ Public purchasing procedures involving multiple bids and disclosure of them discourage providers from making offers because any competitive advantage associated with a capacity for creative insurance policy design may be lost due to public disclosure requirements.
- ◆ Public buyers require more investment in education efforts by vendors before any proposal can be made because the officials generally enter the EI market with less information than private insurance purchasers and because more individuals need to be educated.
- ◆ A number of public officials from different departments and agencies are involved in the purchase decision and it is often difficult for an insurance representative to determine the most appropriate person with whom to speak.

The problem of having to engage in repeated educational efforts was underscored by the events reported by one State Official during the data collection period for this study. The state brownfields

program held a meeting with insurance representatives who flew from various parts of the country to give an overview of EI. Members of the state's program who attended then gave a report about the meeting to its external brownfields advisory group; members of this last group expressed interest in the concept of pooling cities to purchase EI and requested that a mini-workshop be held. In short, the insurance company representatives will be asked to fly back to repeat the previous instruction to a new group before moving on to the pooling concept.⁹

Aggravations stemming from dealing with multiple actors and identifying the appropriate person to begin with was repeatedly expressed by insurance vendors:

The trouble is finding the person who makes the decisions and then getting to them. You start wherever you can find an entry and educate them and then find out that they're not the right person and you have to find the next person in line, educate them, and keep working your way through. (Broker)

Such frustrations were corroborated in an interview with one Administrator, who described the structural arrangements in the city's brownfield program. The labels for the units described have been changed here to cloak identities. However, the essence of the description is preserved, reflecting the confusion that may be experienced by a broker seeking appropriate personnel to contact:

When we received the original Demonstration Pilot, we were the Assessment Unit. Later, we separated from the Assessment Group and became our own Unit. So we still have Assessment and we also have a Redevelopment Office. However, right now, the Department is thinking about combining our Environmental Program, which we are all part of now, with the Economic Development Group. If that happens, we'll be combined again, into a Brownfields Unit. Now they're separate, but we work closely together. When the merger happens, it will be one Unit but still two Programs. The Revolving Loan Fund came into being after we formed the Redevelopment Office. The Assessment folks don't have any involvement on the Loan Fund....The Redevelopment Office has been removed from Assessments, so it's all one Unit. We have a Loan Unit but it's just considered a Program...Also, we serve as a facilitator for the entire State. The State program is set up a little differently..... (Administrator)

3.4 Limited Personnel and the Complexities of Environmental Insurance

⁹The workshop had not yet been arranged at the time this report was prepared.

Even when a brownfields group had determined that the potential of EI should be explored, the efforts of the group to act on this conclusion were sometimes arrested, leaving insurance on the ‘back-burner’ as a priority. One common pattern found among those who were interested in insurance, but had not pursued this interest was that no one was assigned to investigate the relevance of the policies to their projects:

The discussions about insurance have pretty much been that it’s something we really need to look into and find more about. But it’s not the easiest thing. It has to be researched. (Administrator)

Whenever we’d mention environmental insurance at a steering committee meeting, you know, we could probably use insurance on this site, we’d say, ‘Gee, we ought to get somebody in here who understands that and tell us what that means.’ But that’s the extent of it. It never seems to go beyond that. We never seem to really understand what’s available as far as environmental insurance. We just don’t. (Member)

The most important contributing factor to the back-burner phenomenon was that the public brownfields programs generally relied on a limited number of paid staff and community volunteers. Personnel resource problems were especially acute where brownfield offices were ‘one-person shops’ in which a single individual was given primary responsibility for stimulating redevelopment projects.

The problem of limited personnel is exacerbated by the fact that EI products have become more sophisticated. While they are thus more useful now, they are also quite complex. Although there are standard, ‘off-the-shelf’ policies available, many policies are heavily ‘manuscripted’ or tailored. This means that expertise is required to select the coverages that will protect against the risks attendant on particular projects. The complexity of the products adds to the already complicated brownfield redevelopment process, as described by one Member:

People assigned to brownfield programs have the interest and some knowledge, but it’s very complicated in terms of involving environmental engineering angles, real estate angles, legal issues, liability issues. There’s just so many angles that it almost takes somebody to specialize in brownfields to bring all those elements together. (Member)

Given limited personnel, the many aspects of brownfields redevelopment that need to be researched, and the formidable nature of investigating EI, an element of avoidance behavior may come into play so that pursuing EI becomes, as one Member noted, “the last thing on the list.”

3.5 Conceptualizing the Structure of an Insurance Program

For the interviewees who were actively involved in the pursuit of insurance, the most daunting task was envisioning how an insurance program could be structured (e.g., determining whether a self-insurance program should be established or insurance should be purchased, whether a group of cities should organize for bulk purchases of EI or if municipal portfolio policies were a preferable and feasible option). Government entities face a difficult task in selecting an appropriate organizational form for a brownfields insurance program and the identifying the role that public bodies should play within such a program.

The problem of how they can most effectively utilize insurance involves issues that cannot be addressed simply through emulation of private sector experiences. Public brownfield programs differ both in their needs and their decision-making processes from the private firms that have thus far been the major users of EI. Key differences include, first, the fact that municipalities not only are redeveloping their publically owned sites, but also are attempting to facilitate the cleanup and reuse of privately owned properties in which they do not have a legal ownership interest. Second, cities are dealing with both large-scale redevelopment projects and numerous small-scale brownfields that have relatively small cleanup costs. The latter pose different problems for EI use than those addressed thus far by the insurance industry in its provision of coverage for large private projects. Third, legislative and constitutional limits on municipal liability exist and vary from state to state, limiting the extent to which municipalities can learn from each other. Finally, there are differences in the legal requirements dictating municipalities' purchasing processes that may affect their ability to attract bids from potential insurance providers.

These differences pose critical issues for government-led insurance programs including the feasibility of purchasing policies for portfolios of brownfield sites, the value of organizing with other government entities to create self-insurance pools, and the extent to which governments should subsidize insurance for private parties. Among interviewees, even those with a background in insurance were unclear on these topics. Although one Advocate had no difficulty conceptualizing a portfolio policy for municipally owned brownfields, he noted the difficulties that could arise in designing insurance to accommodate both publically and privately owned sites:

The basic idea is to put together a portfolio of brownfields and essentially do portfolio insurance with the city taking a significant self-insured retention. The city would have guidelines and if properties fall within the guidelines, they can be added to the portfolio without getting detailed underwriting by the insurance carrier. The insurance carrier would provide catastrophic coverages....The reason we haven't done anything with insurance is

that we have a large number of brownfield sites, but virtually all of them are privately owned. The city itself doesn't have enough sites to constitute a meaningful portfolio. So, I've talked about seeing whether we might not be able to pool several of the pilot cities to get our critical mass....I can conceive of ways of putting things together so that there's some sort of a public sponsorship with a way to allow private entities to participate. But you have to think carefully about that because the model that we're pursuing for public entities involves a significant amount of municipal self-insurance and there are legal and regulatory problems in trying to structure a single pool that includes as its participants both public and private entities. [You could have a private and a separate public pool] but then you lose part of your critical mass. And then the question is, why is there any need for municipal participation in trying to get private entities to organize a pool? (Administrator)

Most interviewees pursuing EI had not begun to cope with such issues in any depth. At the time the first interviews were conducted in the spring, they had progressed only to the general concept of combining sites to allow discounted, bulk purchasing:

We've talked about pooling sites. We thought about actually going to a couple of insurance providers and saying, what if we put together a number of brownfields? How could we work with you? (Administrator)

Follow-up discussions six months later with the five cities and two states that were actively pursuing insurance indicated that none had achieved significant progress in terms of designing the structure of an insurance program. Two of the cities had taken no new steps in investigating insurance. One municipal group had requested information about coverages from insurance representatives, but Members had not had the time to study the materials. The remaining two cities and both states had met with carriers and brokers to discuss possible coverages and program designs, but none had purchased policies. One State Official summarized the status of all three of these efforts noting that "We're in about the same position we were in when you and I talked earlier." Indeed, during the first round of interviews, this Official noted that, "The pool concept is something we might examine from a state standpoint." Although group participants had increased their knowledge of available coverages, as of the second interview, the status of their state effort was still described as being "interested possibly in some type of pooling arrangement for brownfields liability. But that's about as far as the discussion has gotten."

Certainly, it is possible to create insurance programs useful to the public sector. Two cities in the sample had incorporated EI as a component of their brownfields program. One requires that BCRLF borrowers purchase Cleanup Cost Cap insurance in order to qualify for a loan. Insurance premiums may be paid from the initial loan proceeds and the city must be named as a co-payee beneficiary. The city also

offers a list of companies that provide Pollution Liability insurance coverage for potential use on the borrower's part, but this coverage is not mandated. As of November of 1999, however, the city's BCRLF had not made a loan, so the impact of the requirement could not be measured. The second municipality provides protection for developers of small sites with a program that mirrors Cleanup Cost Cap insurance. It provides up to \$100,000 per site in overrun protection, using a portion of its Community Development Block Grant funds as a loss reserve. Because the coverage is not actually "insurance" from a legal standpoint (no premiums are charged) oversight by the State Board of Insurance is not required. Only one developer has taken advantage of the program and that cleanup did not incur a cost overrun. As the city's pilot Administrator noted, the viability of the program awaits the results of additional user experiences.

The state that incorporated insurance in the summer of 1999 did not attempt to define a portfolio of specific sites. Rather, representatives of the brownfields program negotiated a standardized bundle of insurance protections with a single provider for individual redevelopment projects. A number of endorsements also may be purchased to augment the base coverages. The bundle includes Cleanup Cost Cap, Pollution Liability, and Secured Creditor protections. The insurance provider lowered rates for coverage in anticipation of bulk sales and because underwriting costs were reduced through the use of a standard policy formula. As a further inducement to potential brownfield redevelopers, the state also offers to pay fifty percent of the premiums for those parties purchasing coverage under the plan. The policies are optional; they are not required to receive other subsidies such as cleanup grants. As of November 1999, only one redeveloper had purchased the insurance. Thus, insufficient data are available to permit findings on the strengths and weaknesses of this program with respect to utilization rates, the need for the government subsidy of premium costs, or profitability for the insurer.

These programs need to be evaluated and additional models for structuring insurance programs and reducing coverage costs should be explored. As one Administrator noted, "This is all very new to us. If we understood what was possible, it would help." In the absence of a framework to guide the creation of useful programs, efforts on the part of government and insurance representatives to move the insurance purchasing process forward may be paralyzed: in order to develop a quote for a prospective client, insurers ask, "What insurance do you need?" only to have public officials respond, "What insurance do we need?" Thus, the biggest impediment to developing products for government-led brownfields programs is the absence of models that permit officials to understand their possible choices and the costs and benefits of the alternatives open to them.

Designing an EI program useful to government entities requires a lengthy process of collaboration and negotiation and insurance brokers and agents receive no compensation until a policy is purchased.¹⁰ Requests for immediate firm price quotations are not possible when the coverages desired are unspecified and the potential sites to be covered are inadequately characterized or even unknown. When these estimates are not immediately forthcoming from insurers, however, municipal officials can become frustrated and the negotiations can freeze, as indicated by the following comments:

One difficulty is that we've received nothing in writing from the brokers. We're given a lot of scenarios during meetings, but we seem to have a hard time actually getting it in writing. They've told me this will most likely run \$7,000 and I requested that in a letter to at least give me something to work with...So, quite frankly, I've been disappointed. They've requested information of us in writing -- give us an overall business demographic, give us this and that, let us know what type of things we'd be dealing with. But, in turn, we can't get a response. (Administrator)

We had the plans [for environmental insurance] all worked out conceptually. I told [the brownfields program Administrator], 'We've got the general framework and I've got an insurer ready to work with us.' He wrote me back and said, 'Okay, give me a quote.' And I wrote him back and said, 'This is not your typical insurance program. Right now, you can't even tell me what properties are going to go in the portfolio. This is a public-private partnership where the insurer is prepared to come in and work with the city to structure this deal. It's inappropriate to say, give me a quote.' And he came back and said, 'Well, the way insurance works as far as I know is, you ask for bids and you get quotes. And if you're not prepared to give me a quote, then I'm not interested.' (Broker)

Breaking this impasse may require innovative efforts to generate new channels of communication between potential buyers and sellers that are always needed to stimulate the development of new markets. It appears that public sector purchase of EI for brownfields redevelopment is such a potential new market, and its rate of growth may be dependent upon some external facilitation.

3.6 Questions Requiring Resolution

The complexity of the insurance policies available, the nature of local government regeneration

¹⁰ Negotiations of specific insurance coverages by the one state that had incorporated insurance took a year, after the state had decided on the types of insurance needed, the carrier that would provide the coverages, and the bulk-purchases structure of the insurance program.

efforts and purchasing protocols, and the concerns of private brownfield stakeholders all shape the problem of how EI might be used as a redevelopment tool. Knowledge of these features of the decision problem permits derivation of a series of questions that would need to be addressed in order to design a government-led insurance program:

- ◆ Relative to purchasing insurance from a commercial carrier, what are the relative merits and drawbacks of self-insuring through a governmental pool?¹¹
 - ▶ To what extent would the cost savings, cash flow benefits, and coverage flexibility offered by these pools warrant the time, effort, and expense to establish them?
 - ▶ What is the optimal composition of a pool in terms of size, i.e., a single municipality, several municipalities, or throughout a state?
 - ▶ What approaches and levels of effort are needed to recruit members to join the pool? While a “critical mass” is required to distribute risk, potential members may be reluctant to join since one member's loss experiences affect other members' costs.
 - ▶ Who should administer the policy? Do local or state government entities have the capacity to manage the pool or should the services be purchased?
 - ▶ What are the roadblocks to adding EI coverages to existing governmental pools?
 - ▶ How do state regulations constrain the operation of a pool (e.g., in terms of the lines of coverage that may be offered)?
- ◆ What are the advantages of organizing a group of municipalities to purchase insurance policies for individual sites from commercial insurers at reduced costs and favorable terms?
 - ▶ How many brownfield sites would be necessary to induce insurers to offer discounted prices?
 - ▶ Given that a single city may not have a sufficient number of brownfields to benefit from bulk purchases, should such groups be organized at the state level?

¹¹ Governmental self-insured pools are associations of government entities that retain risk rather than transferring it to an insurance company (although excess insurance is usually purchased for catastrophic losses). Premiums, losses, and expenses are shared in agreed ratios and earnings that accrue on loss funds are periodically distributed to pool members. See International Risk Management Institute, Inc. (1999) for further discussion. A number of cities have already established such pools, but environmental coverages are currently excluded.

- ◆ Considering the diversity of the brownfield sites with which governments deal in terms of size and ownership, how feasible are portfolio policies?
 - ▶ Is it possible to develop a policy that includes both privately and publicly owned sites?
 - ▶ What are the prospects that a portfolio policy will lower the insurance costs to serve the needs of small-scale projects?¹²
 - ▶ What environmental assessment requirements would be required by insurers before a site could be added to a portfolio?
 - ▶ Given that different brownfield projects have different insuring needs, what basic coverages should be included in the policy?
 - ▶ How much flexibility in supplemental coverage purchases above the basic package is possible within a structured portfolio plan?
 - ▶ From an insuring standpoint, what are the optimal characteristics of brownfield sites included in a portfolio?

- ◆ Should the involvement of governments be limited to educating private parties about insurance or should public entities provide support for insurance? How should public benefits be measured and assessed to determine the appropriate level of such assistance, if any?

¹²To obtain a sense of insurance costs, one Administrator asked two brokers for ballpark estimates for Pollution Liability coverage for 50 projects with \$25,000 cleanups. The premium costs for each project were estimated by the brokers to be \$7,000 to \$8,000. This cost is excessive for private parties to incur on such small redevelopments. Depending on the public benefits, however, some subsidy to the developers may be warranted.

4.0 Conclusions and Recommendations

Many private redevelopers of large-scale brownfield projects have found EI to be an invaluable tool. Likewise, insurance may also prove important to publicly led brownfield efforts. The products have the potential of solving a range of brownfield problems. EI allows owners and redevelopers involved in brownfield remediations and redevelopments to quantifying cleanup and liability costs and to place limits on the risks and uncertainties they face. The policies thus facilitate a municipality's economic development strategies in that they may:

- ▶ influence owners to release potentially contaminated properties to the market;
- ▶ permit conversion of industrial or heavily contaminated sites to commercial and residential uses where these are determined to be appropriate or highest and best uses;
- ▶ encourage purchasers/redevelopers to choose a brownfield rather than greenfield site for a project;
- ▶ allow buyers and sellers to reach an agreement when divergent estimates of cleanup and liability costs would otherwise paralyze a brownfield transaction; and,
- ▶ provide an alternative or supplement to indemnifications that can negatively impact the indemnitor's balance sheets and credit ratings or may fail to satisfy an indemnitee's need for certainty.

In addition, the new Secured Creditor policies encourage lenders to provide capital for redevelopments by quantifying and limiting creditor risks, reimbursing loan payments in the case of default, protecting lenders against collateral value loss, and limiting their own environmental liability exposures on lender-owned properties. To assess the potential of EI, findings from this study indicate that, at this point in time, two types of action are in order.

4.1 Developer Survey

In the event that insurance programs do not sufficiently lower the costs of premiums for small-scale projects, the question that needs to be addressed is whether or not public subsidies for EI are warranted as redevelopment incentives. A survey of the dollar value developers attach to insurance coverages and the extent to which they perceive EI as a prerequisite to investment is needed. A mail survey is the appropriate tool for the collection of the data, since a large sample is required for statistical analysis and project-specific financial details must be collected. For example, the survey questions should be designed

to obtain information on total project cost, cleanup expenses, amounts paid for premiums, developers' experience with policy applications, and payments of claims made.

There are a number of distinct sources for construction of a sample of for-profit brownfield redevelopers who could be surveyed, including lists of developers maintained by Pilot projects, attendees at brownfield conferences, environment section members of the Urban Land Institute, and the like. A sample should be drawn that reflects state and regional policy and brownfield experience differences as well as varying developer and project sizes. A survey of this type would help to determine the utility of EI relative to more traditional subsidy instruments such as low-cost loans and tax incentives. Non-federal funds may be available to support such a data collection and analysis effort, since the survey would have value not only to governments, but to developers and the insurance industry as well.

4.2 National Forum to Develop Insurance Program Models

The most important step that needs to be taken consists of creating a national forum to address the questions specified in Section 3.6 above and develop workable models of insurance programs that public entities could use as a basis for creating programs geared to their specific needs. In addition to analysts to guide the process, essential participants include members of state and local brownfield programs and risk management offices, insurance carriers and brokers, independent insurance purchasing consultants, and environmental lawyers.

The forum could be implemented in a cost-effective way as an “electronic focus group,” using a web site to transmit and archive communications. More than one EI model would be required, given differences in municipal liability limits, state laws governing insurance, and brownfield efforts in different states and municipalities (e.g., some cities are predominantly concerned with publicly owned properties while others focus on spurring the private brownfields market). The focus group thus would have to be able to address multiple discussion threads simultaneously, under the direction of the analysts facilitating the communications.

Willingness to participate on the part of insurance vendors may be anticipated since the forum would help to ease some of the frustrations involved with developing a public market noted in Section 3.3 including slow decision-making processes on the part of government entities that largely can be attributed to the inability to envision the structure of a publically led insurance program. The focus group offers insurance carriers and brokers a more efficient process, compared to flying to various cities throughout the

country to inform public brownfields stakeholders.

From an insurance-utilization standpoint, some of the answers to the Section 3.6 questions may be negative. It may be the case, for example, that insurance products designed to serve both public and private and large and small brownfields may not be legally permitted under some state laws, may not be cost-effective from the perspective of the insured, and/or may not offer sufficient returns to insurance carriers. The determination of such limitations on EI coverages would be useful information to all participants that could save them the time and money they might otherwise spend investigating prospects that have no real potential. Together with affirmative conclusions the forum may reach, the findings could prove invaluable to public entities in making the decisions required to efficiently and effectively use EI to augment the set of tools and techniques already being employed to promote the reclamation and reuse of brownfield sites.

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